REMARKS

Claims 1-19, 21-30 are pending. Claims 12 and 21 have been amended. Claim 20 has been cancelled without prejudice or disclaimer.

Reconsideration in view of the above amendments and following remarks is respectfully requested.

Entry of the Amendment is proper under 37 C.F.R. § 1.116 as the amendments:

(a) place the application in condition for allowance for the reasons discussed herein;

(b) do not raise any new issues that would require further consideration and/or search as the amendments merely incorporate the subject matter of claim 20 into claim 12 and corrects the dependency of claim 21;

(c) does not add any new claims without canceling a corresponding number of claims; and

(d) places the application in better form for appeal, should an appeal be necessary. The amendments are necessary and were not presented earlier as they are in response to arguments raised in the final rejection. Entry of the amendment is respectfully requested.

Claim Rejection – 35 USC § 103

Applicants note that claim 15 has been rejected under 35 U.S.C. § 103(a) over both Takizawa in view of Ota and Takizawa in view of Ota and Tsutsui. The Examiner is respectfully requested to clarify if Tsutsui is necessary for a *prima facie* case of obviousness against claim 15 and dependent claims 16-19.

Claims 1, 4, 7, 8-15, 17-19, 23, 24, 29 and 30 are rejected under 35 U.S.C. § 103(a) over Takizawa (US Pat. No. 5,471,279) in view of Ota (US Pat. No. 6,228,544). Applicants respectfully traverse this rejection for at least the following reason.

The Examiner contends that Takizawa discloses all the structure recited in the claims but concedes that Takizawa is silent about "...an intermediate table on which a substrate can be positioned before transfer to the substrate table."

The Examiner contends, however, that the use of an intermediate table on which a substrate can be positioned before transfer to the substrate is routine in the art as is evident from Ota and thus it would have been obvious to one of ordinary skill in the art to modify

Takizawa by including an intermediate table on which a substrate can be positioned before transfer to the substrate table. Applicants respectfully disagree.

Takizawa simply teaches a substrate supporting apparatus having a float chuck and a base chuck. Pressurized air is supplied between the float chuck and the base chuck to float the float chuck. The substrate is attracted to a surface of the float chuck. As clearly stated in col. 6, lines 8-15 of Takizawa, the substrate is attracted to the float chuck and the floating force of the pressurized air does not act on the substrate directly. Therefore, not only Takizawa fails to disclose, teach or suggest an intermediate table comprising a major surface provided with a plurality of aperture, but Takizawa also fails to disclose, teach or suggest a gas bearing generator constructed and arranged to generate a gas bearing between the major surface and a substrate located thereon (emphasis added).

As stated in page 3, lines 25-31 of the specification, the gas bearing substantially removes the friction between the substrate an the major surface of the intermediate table. For example, the substrate can easily expand and shrink on the gas bearing when the temperature of the substrate changes. Moreover, the gas bearing eliminates any contamination of the backside of the substrate by any foreign particles. In some instances, particles already collected on the backside can even be blown away from the backside by the gas bearing.

With regard to Ota, this reference merely teaches a temperature adjustment plate 20 for cooling a substrate 9 before transporting the substrate 9 onto a substrate stage 8. The temperature adjustment plate has spindles 21a-21c having holes at the tip to support the substrate 9 through vacuum absorption (suction). Therefore, Ota does not disclose, teach or suggest a gas bearing generator constructed and arranged to generate a gas bearing between the major surface and a substrate located thereon. Moreover, even if one were to modify Takizawa by including a temperature adjustment plate as taught by Ota, one would not obtain "the intermediate table comprising a major surface provided with a plurality of apertures; and a gas bearing generator constructed and arranged to generate a gas bearing between said major surface and a substrate located thereon," as recited in claim 1.

Consequently, neither Takizawa nor Ota discloses, teaches or suggests, alone or in combination, the subject matter recited in claim 1.

For at least the reasons provided above for claim 1, neither Takizawa nor Ota discloses, teaches or suggests, alone or in combination, "providing the substrate to an intermediate table comprising a major surface provided with a plurality of apertures, and

maintaining the substrate for a given time interval upon a gas bearing generated between the major surface and the substrate," as recited in claim 10.

Similarly, for at least the reasons provided above for claim 1, neither Takizawa nor Ota discloses, teaches or suggests, alone or in combination, "the intermediate table comprising a major surface provided with a plurality of apertures, and gas bearing generator constructed and arranged to generate a gas bearing between the major surface and substrate located thereon," as recited in claim 12.

Similarly, for at least the reasons provided above for claim 1, neither Takizawa nor Ota discloses, teaches or suggests, alone or in combination, "an intermediate table on which a substrate can be positioned before transfer to a substrate table in a lithographic projection apparatus, the intermediate table comprising a major surface provided with a plurality of apertures; a gas bearing generator constructed and arranged to generate a gas bearing between said major surface and a substrate located thereon," as recited in claim 15.

Therefore, Applicants submit that claims 1, 10, 12 and 15 and claims 4, 7, 8, 9, 11, 13, 14, 17-19, 23, 24, 29 and 30 which depend from either claim 1, 10, 12 or 15 are patentable and respectfully request that the rejection of claims 1, 4, 7, 8-15, 17-19, 23, 24, 29 and 30 under § 103(a) be withdrawn.

Claims 12 and 13 are rejected under 35 U.S.C. § 103(a) over Leoff (US Pat. No. 3,603,646) in view of Doley et al. (US Pat. No. 6,161,311).

The Examiner contends that Leoff discloses all the structure set forth in the claims. The Examiner concedes that Leoff is silent about an ionizer constructed and arranged to ionize the gas. The Examiner asserts, however, that the use of an ionizer to ionize the gas in a semiconductor wafer handling system is routine in the art as is evident from the teaching of Doley (abstract) and thus it would have been obvious to modify Leoff by including an ionizer constructed and arranged to ionize the gas.

Applicants have amended claim 12 to further recite "a first temperature controller constructed and arranged to regulate a temperature of the intermediate table."

As conceded in the Office Action Leoff is completely silent about an ionizer constructed and arranged to ionize the gas. Moreover, Leoff does not disclose, teach or suggest a temperature controller constructed and arranged to regulate a temperature of the intermediate table. By controlling the temperature of the intermediate table, the temperature

of the substrate can be influenced. For example, the temperature of the intermediate table can be maintained a a temperature substantially equal to the temperature of a substrate table.

Doley et al. is also completely silent about providing, *inter-alia*, "a temperature controller constructed and arranged to regulate a temperature of the intermediate table."

Consequently, neither Leoff nor Doley et al. disclose, teach or suggest, alone or in combination, the subject matter recited in claim 12.

Therefore, Applicants respectfully submit that claim 12, and claim 13 which is depend therefrom, are patentable and respectfully request that the rejection of claims 12 and 13 under § 103(a) be withdrawn.

Claims 2, 16 and 25 are rejected under 35 U.S.C. § 103(a) over Takizawa (US Pat. No. 5,471,279) and Ota (US Pat. No. 6,228,544) as applied to claim 1 and further in view of Doley et al. (US Pat. No. 6,161,311). Applicants respectfully traverse this rejection for at least the following reasons.

Claims 2, 16 and 25 are dependent from, respectively, claims 1, 15 and 10. Therefore for at least the above reasons provided for claims 1, 15 and 10, neither Takizawa nor Ota discloses, teaches or suggests, alone or in combination, the subject matter recited in 2, 16 and 25.

Doley et al. fails to overcome the deficiencies noted above in claims 1, 15 and 10. Consequently, for at least the above reason, Takizawa, Ota and Doley et al. do not disclose, teach or suggest, alone or in combination, the subject matter recited in claims 2, 16 and 25.

Therefore, Applicants respectfully submit that claims 2, 16 and 25 are patentable and respectfully request that the rejection of claims 2, 16 and 25 under § 103(a) be withdrawn.

Claims 3, 5 and 6 are rejected under 35 U.S.C. § 103(a) over Takizawa (US Pat. No. 5,471,279) and Ota (US Pat. No. 6,228,544) as applied to claim 1 and further in view of Tsutsui (US Pat. No. 4,720,732). Applicants respectfully traverse this rejection for at least the following reasons.

Claims 3, 5 and 6 are dependent from claim 1. Therefore, for at least the above reasons presented for claim 1 neither Takizawa nor Ota discloses, teaches or suggests, alone or in combination, the subject matter recited in 3, 5 and 6.

Tsutsui fails to overcome the deficiencies noted above in claim 1. Consequently, for at least the above reason, Takizawa, Ota and Tsutsui do not disclose, teach or suggest, alone or in combination, the subject matter recited in claims 3, 5 and 6.

Therefore, Applicants respectfully submit that claims 3, 5 and 6 are patentable and respectfully request that the rejection of claims 3, 5 and 6 under § 103(a) be withdrawn.

Claims 3, 5, 6, 15, 20-22 and 26-28 are rejected under 35 U.S.C. § 103(a) over Takizawa (US Pat. No. 5,471,279) and Ota (US Pat. No. 6,228,544) as applied to claim 1 and further in view of Tsutsui (US Pat. No. 4,720,732). Applicants respectfully traverse this rejection for at least the following reasons.

Claims 3, 5 and 6 are dependent from claim 1. Therefore, for at least the above reasons presented for claim 1 neither Takizawa nor Ota discloses, teaches or suggests, alone or in combination, the subject matter recited in 3, 5 and 6.

Tsutsui fails to overcome the deficiencies noted above in claim 1. Consequently, for at least the above reason, Takizawa, Ota and Tsutsui do not disclose, teach or suggest, alone or in combination, the subject matter recited in claims 3, 5 and 6.

With regard to claim 15, as stated above, neither Takizawa nor Ota discloses, teaches or suggests, alone or in combination, the subject matter recited in claim 15. Moreover, Tsutsui fails to overcome the deficiencies noted above. Consequently, Takizawa, Ota and tsutsui do not disclose, teach or suggest, alone or in combination, the subject matter recites in claim 15.

With regard to claims 20-22, claim 20 is cancelled without prejudice or disclaimer, therefore the rejection is rendered moot. Claim 21 has been amended to depend from claim 12. Claim 22 is dependent from claim 12. Therefore, for at least the above reasons presented for claim 12 neither Takizawa nor Ota discloses, teaches or suggests, alone or in combination, the subject matter recited in claims 21 and 22.

Tsutsui fails to overcome the deficiencies noted above in claim 12. Consequently, for at least the above reason, Takizawa, Ota and Tsutsui do not disclose, teach or suggest, alone or in combination, the subject matter recited in claims 21 and 22.

With regard to claims 26-28, claims 26-28 depend from claim 10. Therefore, for at least the above reasons presented for claim 10 neither Takizawa nor Ota discloses, teaches or suggests, alone or in combination, the subject matter recited in claims 26-28.

Tsutsui fails to overcome the deficiencies noted above in claim 10. Consequently, for at least the above reason, Takizawa, Ota and Tsutsui do not disclose, teach or suggest, alone or in combination, the subject matter recited in claims 26-28.

Therefore, Applicants respectfully submit that claims 3, 5, 6, 15, 21, 22, and 26-28 are patentable and respectfully request that the rejection of claims 3, 5, 6, 15, 21, 22, and 26-28 under § 103(a) be withdrawn.

CONCLUSION

In view of the foregoing, the claims are now in form for allowance, and such action is hereby solicited. If any point remains in issue which the Examiner feels may be best resolved through a personal or telephone interview, he is kindly requested to contact the undersigned at the telephone number listed below.

Attached is a marked-up version of the changes made to the claims by the current amendment. The attached Appendix is captioned **"Version with marking to show changes made"**.

All objections and rejections having been addressed, it is respectfully submitted that the present application is in a condition for allowance and a Notice to that effect is earnestly solicited.

Respectfully submitted,

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Attachment:
Appendix

APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claim 20 has been cancelled without prejudice or disclaimer.

Claims 12 and 21 have been amended as follows:

12. (Three Times Amended) A substrate preparing device comprising an intermediate table on which a substrate can be positioned before transfer to a substrate table in a lithographic projection apparatus;

the intermediate table comprising a major surface provided with a plurality of apertures, and a gas bearing generator constructed and arranged to generate a gas bearing between said major surface and a substrate located thereon;

a first temperature controller constructed and arranged to regulate a temperature of the intermediate table; and

an ionizer constructed and arranged to ionize the gas.

21. (Amended) A substrate preparing device according to claim [20] 12,

wherein said first temperature controller maintains the intermediate table and the gas bearing at a temperature substantially equal to a temperature of the substrate table.

End of Appendix